2822

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Kim et al.

Serial No.: 10/032,687

Filed: December 28, 2001

For: METHOD OF FORMING WIRING IN SEMICONDUCTOR DEVICES

Group Art Unit: 2822

Examiner: Maria F. Guerrero

I hereby certify that this paper (or fee) is being deposited with the United States Postal Service, first class postage prepaid, addressed to: Commissioner for Patents, Washington, D.C. 20231

January 15, 2003

James P. Zeller
Reg. No. 28,491

AMENDMENT "A"

Commissioner for Patents
Washington, D.C. 20231

Sir:

Please amend this application as follows:

IN THE SPECIFICATION:

The paragraph beginning at page 5, line 21 has been changed as follows:

Referring to Fig. 4A, a gate oxide film 2, a polysilicon layer 3, a metal layer 4 and a hard mask layer 5 are sequentially formed on a semiconductor substrate 1. Then, photolithographic film patterns 6 are formed on the hard mask layer 5. The metal layer 4 is made of metal such as aluminum (Al), tungsten (W) and titanium (Ti) or silicide. The hard mask layer 5 uses a nitride film deposited by low-pressure chemical vapor deposition (LPCVD) using SiH4 and NH3 in a single type chamber capable of processing a wafer one by one. The deposition process includes the following conditions: the temperature is 600°C to 800°C and the pressure is over 1 Torr, preferably, 1 Torr to 500 Torr. Also, the nitride film is formed in a thickness of 500Å to 3000Å.